1 Identification

- Product identifier
  - Trade name: PANAVIA \ ETCHING AGENT V
  - Article number: US031-EV
  - Relevant identified uses of the substance or mixture and uses advised against
    - No further relevant information available.
  - Application of the substance / the mixture
    - Dental etching composite

- Details of the supplier of the safety data sheet
  - Manufacturer:
    - Kuraray Noritake Dental Inc.
    - 1621 Sakazu, Kurashiki, Okayama 710-0801, Japan
  - Contact information:
    - Kuraray America, Inc.
    - 32 Old Slip, 7th Floor, New York, NY 10005 U.S.A.
    - Tel: 800-879-1676
    - Fax: 888-700-5200
    - Website: www.kuraraydental.com
  - Emergency telephone number:
    - For chemical emergency spill, leak, fire, exposure or accident
      - Call CHEMTREC day and night
    - Within USA and Canada: 1-800-424-9300 CCN706984 or +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- Classification of the substance or mixture
  - Skin Corr. 1B H314 Causes severe skin burns and eye damage.

- Label elements
  - GHS label elements
    - The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms
    - GHS05

- Signal word
  - Danger

- Hazard-determining components of labeling:
  - phosphoric acid

- Hazard statements
  - H314 Causes severe skin burns and eye damage.

- Precautionary statements
  - P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  - P280 Wear eye protection / face protection.
  - P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P310 Immediately call a poison center/doctor.
  - P321 Specific treatment (see on this label).
  - P363 Wash contaminated clothing before reuse.

(Contd. on page 2)
Trade name: PANAVIA ; ETCHING AGENT V

49.0.2 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:
7664-38-2 phosphoric acid 
Skin Corr. 1B, H314; Acute Tox. 4, H302 30-40%

Other ingredients:
Polyvinylpyrolidone
Colloidal silica
Water
Dyes

4 First-aid measures

Description of first aid measures
General information: Immediately remove any clothing soiled by the product.
After inhalation: In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Information for doctor:
Most important symptoms and effects, both acute and delayed No further relevant information available.
Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture No further relevant information available.
Advice for firefighters
Protective equipment: Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Environmental precautions:
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 3)
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling:
- Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
  Storage:
  - Requirements to be met by storrerooms and receptacles: Store in a cool location (2-25°C).
  - Information about storage in one common storage facility:
    Store away from oxidizing agents.
    Store away from reducing agents.
  - Further information about storage conditions:
    Keep receptacle tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.
    Protect from heat and direct sunlight.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace:
    | 7664-38-2 phosphoric acid |
    |--------------------------|
    | PEL 1 mg/m³ |
    | REL Short-term value: 3 mg/m³ |
    | Long-term value: 1 mg/m³ |
    | TLV Short-term value: 3 mg/m³ |
    | Long-term value: 1 mg/m³ |
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
  - Breathing equipment: Not required.
  - Protection of hands:
    Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  Tightly sealed goggles

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  **General Information**
  **Appearance:**
  - Form: Liquid
  - Color: Red
  - Odor: Odorless

  **pH-value:** 1.8

  **Change in condition**
  - Melting point/Melting range: 42.4 °C (phosphoric acid)
  - Boiling point/Boiling range: Not determined

  **Flash point:** Not determined

  **Ignition temperature:** Not determined

  **Danger of explosion:** Product does not present an explosion hazard.

  **Explosion limits:**
  - Lower: Not determined
  - Upper: Not determined

  **Vapor pressure:** Not determined

  **Density:** Not determined

  **Vapor density**
  - Partly miscible.

  **Solubility in / Miscibility with Water:** Not determined

  **Partition coefficient (n-octanol/water):** Not determined

  **Viscosity:** Not determined

  **Other information**
  No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
  No further relevant information available.
49.0.2

- Chemical stability
- Thermal decomposition / conditions to be avoided:
  No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values that are relevant for classification:
      7664-38-2 phosphoric acid
      | Route  | LD50  |
      |--------|-------|
      | Oral   | 1250 mg/kg (mouse) |
      |        | 1250 mg/kg (rat)   |
      | Dermal | 2740 mg/kg (rabbit) |
  - Primary irritant effect:
    - on the skin: Caustic effect on skin and mucous membranes.
    - on the eye: Strong caustic effect.
    - Sensitization: No sensitizing effects known.
  - Carcinogenic categories
    - IARC (International Agency for Research on Cancer) None of the ingredients is listed.
    - NTP (National Toxicology Program) None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Additional ecological information:
    - General notes:
      Water hazard class 1 (Self-assessment): slightly hazardous for water
      Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
      Must not reach bodies of water or drainage ditch undiluted or unneutralized.
      Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
      - Results of PBT and vPvB assessment
        - PBT: Not applicable.
        - vPvB: Not applicable.
        - Other adverse effects: No further relevant information available.
13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  - DOT UN1805
  - ADR, IMDG, IATA 1805

- UN proper shipping name
  - ADR 1805 PHOSPHORIC ACID, SOLUTION
  - IMDG, IATA PHOSPHORIC ACID, SOLUTION

- Transport hazard class(es)
  - DOT
    - Class 8 Corrosive substances
    - Label 8
  - ADR, IMDG, IATA
    - Class 8 Corrosive substances
    - Label 8

- Packing group
  - DOT, ADR, IMDG, IATA III

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - Warning: Corrosive substances
  - Danger code (Kemler): 80
  - EMS Number: F-A,S-B

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.

- UN "Model Regulation":
  - UN1805; PHOSPHORIC ACID, SOLUTION; 8; III
### 15 Regulatory information

- **Sara**
  - Section 355 (extremely hazardous substances):
    None of the ingredient is listed.
  - Section 313 (Specific toxic chemical listings):
    - 7664-38-2 phosphoric acid
  - SARA 311/312: See Section 2 for the information on physical and health hazards.
  - Proposition 65
    - **Chemicals known to cause cancer:**
      None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for females:**
      None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for males:**
      None of the ingredients is listed.
    - **Chemicals known to cause developmental toxicity:**
      None of the ingredients is listed.
  - Cancerogenity categories :
    - EPA (Environmental Protection Agency)
      None of the ingredients is listed.
    - TLV (Threshold Limit Value established by ACGIH)
      None of the ingredients is listed.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **NFPA ratings (scale 0 - 4)**
  - Health = 3
  - Fire = 0
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - HEALT Health = 3
  - FIRE Fire = 0
  - REACTIVITY Reactivity = 0

- **Abbreviations and acronyms:**
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Corr. 1B: Skin corrosion/irritation – Category 1B

* Data compared to the previous version altered.